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FEASIBILITY STUDY OF A FARM SUPPLY
STORE, MARYSVILLE, OHIO

Edgar P. Watkins

FEASIBILITY STUDY OF A FARM SUPPLY STORE,
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A feasibility study is concerned with identifying those influences which have a bearing on whether, in this case, it is economically feasible to locate a farm supply store in an area. In this particular case, a specific location is being evaluated. That location is the Marysville Ohio Grain site at the north edge of the business district. No attempt has been made to seek out the most favorable location for such a facility in the total area served by Ohio Grain.

The Trading Area

In site location analysis, one of the critical decisions relates to the size and shape of the trading area. Stated another way, how much drawing power will this facility have? The trading area is shaped by existing competitive businesses and the attractiveness of the "marketing mix" offered by the proposed facility. Decisions related to the "marketing mix" and their affect on who will become customers and how far these customers will travel are critical. "Marketing Mix" considers:

- (1) THE FACILITY---size, parking, easy access, convenience for customer, pleasant atmosphere and others

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- (2) MANAGEMENT & EMPLOYEES---attitudes, courtesy, etc., service to customers
- (3) PRICE POLICY & ADVERTISING---price/quality relationships, effective promotion
- (4) PRODUCTS---selection, choice, variety, quality, product lines

At the present time, the assumption is that this will be primarily a farm supply store with some consideration of meeting sul urban home owners' needs in the lawn and garden area. The product line would be farm supplies, fence, oil and grease, seeds and plants, small lot fertilizer, veterinary supplies, livestock equipment, farm hardware items and home and garden needs that fall within these classifications or are closely related to them. An option not considered here is the potential for a full line home and garden store in conjunction with a farm supply store.

The trading area is judged to be essentially Union County. Although this store may draw from eastern Logan, northwestern Franklin, eastern Champaign, and northern Madison Counties, there is a balancing loss from Union to Delaware, Marion and Logan Counties.

It is true, in this location, that if the facility carries a full line, is well managed, and has effective public relations that it could offer customers a "one-stop" access to farm supplies not readily available in many communities. There is this opportunity to create an effective trading area which could well cover Union and the surrounding counties. In this instance, it

appears more realistic to consider Union County as the trading area with provisions in planning for expansion to serve Union and the surrounding counties at some future date.

Sales Potential

The sales should be identified as those which can be reasonably expected in the future rather than what is available today. If recent trends in farms, crops and livestock patterns continue, it seems reasonable to expect steady corn acreage, more soybeans, less wheat, less oats for Union County. Generally, these same trends are evident in surrounding counties except Madison where corn acreage has been declining with a very sharp increase in soybeans (See Table 1 in Appendix).

Livestock trends indicate the dairy cattle are declining in numbers, hog numbers are steady, with beef numbers up. As all farm enterprises have grown in size, there are sharply fewer total numbers of farms which are larger purchasers of all farm inputs.

Interpolating information on farm supply expenses and farm income from the tables in the Appendix, total farm supply sales for the Union county area are estimated at \$1,692,500. This is assuming a fairly complete line of fence, livestock equipment, farm hardware, machinery maintenance items (not parts), petroleum products (not fuel), sprays, chemicals, pesticides, fungicides, small lot fertilizer and seeds, veterinary supplies, and related home and garden items.

Share of Market

This estimate of what portions of the total business are available to one specific business is a critical one and one necessarily subject to judgment and estimates. Very seldom is one location able to tap 50 percent of the total. If personable, capable, able management is hired for this operation for the Marysville site, it seems reasonable to plan on a 35 percent share, given the competition in the area now. Using this estimate and a 35 percent share, total sales for this area in 1972 dollars would be \$592,375 per year. Adjusting this figure for inflation to 1975 would probably add at least 30 percent, resulting in a sales potential of \$770,087.

Size of Facility

To keep occupancy costs within acceptable limits, a sales volume of \$150 per square foot per year should be achieved. When this figure is applied to \$770,087, a structure of 5133 square feet (for example, a building 60' x 85') seems feasible, with an equal amount of outdoor display/storage (some of which might be roofed). A parking and access area of about 15,000 feet would be needed. The site should also provide for a 100 percent expansion should future developments favor expanding the trading area to include portions of surrounding counties. For the present, a total site area of 25,000 feet would be required with another 25,000 feet available for the future.

If, in addition to farm supplies, a full home and garden line was added, sales potential would increase about 60 percent, but space requirements would approximately double.

TABLE 1. Crop Acres and Yield

County	Corn		Soybeans		Wheat		Oats	
	Acres	Bushels	Acres	Bushels	Acres	Bushels	Acres	Bushels
UNION								
1965	52,300	2,720,000	44,200	729,000	16,000	464,000	9,400	357,000
1969	50,300	4,276,000	59,300	1,779,000	12,000	470,000	9,500	509,000
1973	53,100	4,142,000	70,200	1,994,000	9,700	310,000	8,300	398,000
MADISON								
1965	78,300	6,577,000	56,200	1,630,000	25,000	904,000	6,000	330,000
1969	76,000	6,782,000	66,700	2,234,000	20,600	865,000	6,400	435,000
1973	70,400	4,858,000	95,500	2,435,000	19,100	554,000	4,400	211,000
CHAMPAIGN								
1965	61,200	3,733,000	28,400	554,000	17,400	609,000	8,900	43,600
1969	58,700	5,694,000	36,800	1,306,000	16,900	693,000	9,800	676,000
1973	67,700	5,619,000	54,700	1,668,000	11,700	398,000	8,000	400,000
LOGAN								
1965	46,900	2,158,000	35,000	700,000	15,800	458,000	9,900	356,000
1969	39,900	3,312,000	41,200	1,195,000	12,000	432,000	11,500	679,000
1973	54,700	4,157,000	66,500	1,530,000	9,100	291,000	9,100	419,000

TABLE 2. Livestock Population

County	Thousands of Head			
	All Cattle	All Hogs And Pigs	Milk Cows And Heifers	Sheep
UNION				
1966	29,900	42,000	9,000	14,600
1969	27,800	49,600	7,500	14,700
1973	28,200	43,900	6,500	13,200
MADISON				
1966	39,100	77,200	6,000	10,200
1969	37,800	81,300	5,200	8,800
1973	39,600	66,500	4,200	6,000
CHAMPAIGN				
1966	29,900	45,600	12,500	10,600
1969	39,900	45,900	11,600	10,600
1973	44,200	41,500	10,800	9,500
LOGAN				
1966	32,100	23,200	12,200	17,000
1969	31,500	27,100	16,700	16,100
1973	34,000	24,500	9,900	13,800

TABLE 2a. Cash Receipts, 1972

County	Livestock & Livestock Products	Crops	Total
Union	\$12,956,000	\$10,447,000	\$23,403,000
Madison	15,558,000	12,927,000	28,485,000
Champaign	16,106,000	11,940,000	28,046,000
Logan	12,983,000	11,458,000	24,441,000

TABLE 3

1973 Ohio Farm Business Analysis Report

OVERALL DAIRY FARM SUMMARY

	Unit	Upper 10%	Upper 25%	Middle 50%	Lower 25%	My farm
<u>CASH RECEIPTS</u>						
Milk and Cream	\$	89,847	71,469	44,472	39,628	
Poultry and Eggs	\$		824	794	170	
General Crops	\$	8,394	6,528	2,728	3,113	
Special Crops	\$	488	293	365	669	
Cash Rent and Royalties	\$	690	470	155	94	
Labor Off Farm	\$	316	121	69	69	
Custom Work	\$	425	435	260	250	
Wool	\$			18	3	
Other Livestock Products	\$	116	44	38	92	
Tax Refund	\$	248	154	93	194	
Patronage Dividend	\$	369	286	146	163	
Breeding Fees Received	\$	3	18			
Miscellaneous Receipts	\$	552	473	259	180	
Government Payments	\$	835	426	227	419	
Government Crop Payments	\$	1,501	1,100	587	318	
Market Livestock						
Swine	\$	1,534	757	890	1,188	
Cattle	\$	3,921	2,376	1,187	756	
Veal Calves	\$	1,901	1,447	1,106	1,035	
Lambs	\$			49	3	
Total Cash Receipts	\$	111,140	87,221	53,443	48,344	
<u>CASH EXPENSES</u>						
Hired Labor	\$	12,685	8,544	2,313	2,607	
Feed Purchased	\$	19,945	17,194	13,159	11,756	
Farm Supplies	\$	4,171	2,778	1,554	1,423	
Machinery Repairs	\$	3,458	2,889	2,131	2,465	
Bldg., Fence, Tile, Etc. Repairs	\$	1,495	1,183	788	1,037	
Fuel, Oil, and Grease	\$	2,804	2,090	1,424	1,525	
Utilities (Farm Share)	\$	1,293	1,071	746	748	
Drying and Storage	\$	567	390	106	188	
Miscellaneous Expenses	\$	1,563	1,067	478	541	
Seeds and Plants	\$	3,078	2,365	1,280	1,476	
Fertilizer and Lime	\$	8,797	6,851	3,775	3,423	
Machine Hire and Trucking	\$	1,968	1,379	582	728	
Auto Expense (Farm Share)	\$	483	440	302	347	
Interest on Notes and Mortgage	\$	5,133	4,347	2,596	3,943	
Veterinary and Medicine	\$	2,125	1,509	810	784	
Breeding Fees and Registration	\$	1,826	1,561	873	936	
Feeder Livestock Purchase	\$	1,592	607	262	303	
Taxes	\$	2,335	1,752	896	1,131	
Cash Rent	\$	4,074	2,623	1,146	1,115	
Insurance	\$	1,134	966	523	532	
Total Cash Expenses	\$	80,526	61,606	35,744	37,008	

TABLE 4

1973 Ohio Farm Business Analysis Report

DAIRY ENTERPRISE SUMMARY

		Upper 10%	Upper 25%	Middle 50%	Lower 25%	My farm
NUMBER OF FARMS		16	42	85	42	
	<u>Unit</u>					
<u>PER COW FINANCIAL SUMMARY</u>						
		<u>Per cow</u>	<u>Per cow</u>	<u>Per cow</u>	<u>Per cow</u>	
Value of Production						
Dairy Increase	\$	330	337	214	138	
Milk Sold	\$	913	907	857	783	
TOTAL VALUE OF PRODUCTION	\$	1,243	1,244	1,071	921	
Cash Expenses						
Hired Labor	\$	74	63	25	28	
Feed Purchased	\$	189	203	236	205	
Farm Supplies	\$	16	13	13	11	
Machine Repairs	\$	11	10	8	8	
Build Fence Etc.	\$	11	11	12	17	
Fuel Oil & Grse.	\$	4	4	4	4	
Utilities	\$	10	11	12	13	
Misc. Expense	\$	9	8	6	7	
Machine Hired Trk.	\$	10	9	5	5	
Auto Expense	\$	2	2	3	3	
Interest on Notes	\$	19	22	23	36	
Vet Medicine	\$	20	18	15	14	
Breeding Fees	\$	19	20	17	18	
Taxes	\$	10	9	7	8	
Rent	\$	1	3	4	3	
Insurance	\$	8	8	6	7	
Total Cash Expenses	\$	413	414	396	387	
Non-Cash Expenses						
Depreciation						
Bldg. Fence Tile	\$	27	25	24	30	
Machinery & Equip.	\$	25	25	26	22	
Purchased Brdg. Stk.	\$	13	12	7	16	
Total Depreciation	\$	65	62	57	68	
Unpaid Opr. and Fam. Labor	\$	122	151	202	174	
Interest Not Charged	\$	73	72	61	63	
Home Grown Feeds	\$	438	428	387	426	
Total Non-Cash Expenses	\$	698	713	707	731	
TOTAL EXPENSES OF PRODUCTION	\$	1,111	1,127	1,103	1,118	
Management Income and Profit	\$	132	117	-32	-197	
Value of Production minus						
Cash Expenses	\$	830	830	675	534	
Return to Unpaid Operator and Family						
Labor, Management and Profit						
Per Cow	\$	254	268	170	-23	
Per Hour	\$	7.12	5.81	2.41	-35	

TABLE 5

1973 Ohio Farm Business Analysis Report

MILK ENTERPRISE SUMMARY

		<u>Upper 10%</u>	<u>Upper 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	<u>My farm</u>
<u>NUMBER OF FARMS</u>		16	42	85	42	
<u>PER CWT OF MILK SOLD</u>	<u>Unit</u>					
<u>FINANCIAL SUMMARY*</u>		<u>Per Cwt</u>	<u>Per Cwt</u>	<u>Per Cwt</u>	<u>Per Cwt</u>	
VALUE OF MILK SOLD	\$	6.59	6.66	6.62	6.36	
Cash Expenses						
Hired Labor	\$	.39	.34	.15	.19	
Feed Purchased	\$	1.00	1.09	1.46	1.42	
Farm Supplies	\$	.08	.07	.08	.08	
Machine Repairs	\$	.06	.05	.05	.05	
Build Fence Etc.	\$	.06	.06	.07	.12	
Fuel Oil & Grse.	\$	.02	.02	.03	.03	
Utilities	\$	.06	.06	.08	.09	
Misc. Expense	\$	.05	.04	.04	.04	
Machine Hired Trk.	\$	.05	.05	.03	.04	
Auto Expense	\$	.01	.01	.02	.02	
Interest on Notes	\$	.10	.12	.14	.25	
Vet Medicine	\$	.11	.10	.09	.10	
Breeding Fees	\$	.10	.11	.10	.12	
Taxes	\$	.05	.05	.04	.05	
Rent	\$	.01	.01	.03	.02	
Insurance	\$	.04	.04	.04	.05	
Total Cash Expenses	\$	2.19	2.22	2.45	2.67	
Non-Cash Expenses						
Depreciation						
Bldg. Fence Tile	\$	.14	.13	.15	.21	
Machinery & Equip.	\$	.14	.14	.16	.15	
Purchased Brdg. Stk.	\$	.07	.06	.04	.11	
Total Depreciation	\$	.35	.33	.35	.47	
Unpaid Opr. & Fam. Labor	\$	.65	.80	1.25	1.20	
Interest Not Charged	\$	.38	.38	.38	.43	
Home Grown Feeds	\$	2.32	2.29	2.39	2.94	
Total Non-Cash Expenses		3.70	3.80	4.37	5.04	
TOTAL COST OF MILK SOLD	\$	5.89	6.02	6.82	7.71	
Management Income and Profit	\$	.70	.64	-.20	-1.35	
Value of Production minus						
Cash Expenses	\$	4.40	4.44	4.17	3.69	
Return to Unpaid Operator and Family						
Labor, Management and Profit						
Per Cwt	\$	1.35	1.44	1.05	-.15	
Per Hour	\$	7.12	5.81	2.41	-.35	

TABLE 6

1973 Ohio Farm Business Analysis Report

OVERALL BEEF FEEDING FARM SUMMARY

<u>CASH RECEIPTS</u>	<u>Unit</u>	<u>Average</u>	<u>My farm</u>
Milk and Cream	\$	776	_____
General Crops	\$	9,468	_____
Cash Rent and Royalties	\$	184	_____
Labor Off Farm	\$	51	_____
Custom Work	\$	457	_____
Wool	\$	11	_____
Tax Refund	\$	87	_____
Patronage Dividend	\$	35	_____
Miscellaneous Receipts	\$	638	_____
Government Payments	\$	463	_____
Government Crop Payments	\$	1,128	_____
Market Livestock			_____
Swine	\$	1,162	_____
Cattle	\$	95,959	_____
Lambs	\$	366	_____
Total Cash Receipts	\$	110,785	_____
<u>CASH EXPENSES</u>			
Hired Labor	\$	1,855	_____
Feed Purchased	\$	9,131	_____
Farm Supplies	\$	2,216	_____
Machinery Repairs	\$	1,725	_____
Bldg., Fence, Tile, Etc. Repairs	\$	645	_____
Fuel, Oil, and Grease	\$	1,506	_____
Utilities (Farm Share)	\$	440	_____
Drying & Storage	\$	46	_____
Miscellaneous Expenses	\$	1,267	_____
Seeds and Plants	\$	2,173	_____
Fertilizer and Lime	\$	5,780	_____
Machine Hire and Trucking	\$	1,108	_____
Auto Expense (Farm Share)	\$	342	_____
Interest on Notes and Mortgage	\$	5,268	_____
Veterinary and Medicine	\$	636	_____
Breeding Fees and Registration	\$	68	_____
Feeder Livestock Purchase	\$	63,888	_____
Taxes	\$	1,020	_____
Cash Rent	\$	1,876	_____
Insurance	\$	708	_____
Total Cash Expenses	\$	101,698	_____

TABLE 7

1973 Ohio Farm Business Analysis Report

BEEF FEEDING ENTERPRISE SUMMARY

	Unit	Upper 25%	Middle 50%	Lower 25%	My Farm
PER CWT OF BEEF PRODUCED					
<u>FINANCIAL SUMMARY</u>		<u>Per Cwt</u>	<u>Per Cwt</u>	<u>Per Cwt</u>	
TOTAL VALUE OF PRODUCTION	\$	50.90	41.55	42.19	_____
Cash Expenses					
Hired Labor	\$	.78	.14	1.09	_____
Feed Purchased	\$	13.47	10.09	10.06	_____
Farm Supplies	\$	.13	.31	.79	_____
Machine Repairs	\$	.38	.37	1.09	_____
Build Fence Etc.	\$	.24	.37	.67	_____
Fuel Oil & Grse.	\$	.22	.18	.40	_____
Utilities	\$	.27	.21	.44	_____
Misc. Expense	\$	.06	.32	.55	_____
Machine Hired Trk.	\$	.11	.40	.15	_____
Auto Expense	\$	.16	.09	.10	_____
Interest on Notes	\$	1.59	3.30	4.02	_____
Vet Medicine	\$	.68	.44	.47	_____
Taxes	\$	.14	.19	.60	_____
Rent	\$	.06	.26	.19	_____
Insurance	\$	.31	.21	.59	_____
Total Cash Expenses*	\$	18.60	16.88	21.21	_____
Home Grown Feeds	\$	15.26	22.63	30.36	_____
Non-Cash Expenses					
Depreciation					
Bldg. Fence Tile	\$	.64	.86	.95	_____
Machinery & Equip.	\$	.61	.80	1.74	_____
Total Depreciation	\$	1.25	1.66	2.69	_____
Unpaid Opr. and Fam. Labor	\$	2.89	4.65	1.81	_____
Interest Not Charged	\$	2.60	1.95	3.43	_____
Total Non-Cash Expenses	\$	6.74	8.26	7.93	_____
TOTAL EXPENSES OF PRODUCTION*	\$	40.60	47.77	59.50	_____
Management Income and Profit	\$	10.30	-6.22	-17.31	_____
Value of Production minus Cash Expenses	\$	32.30	24.67	20.98	_____
Return to Unpaid Operator and Family Labor, Management and Profit					
Per Cwt	\$	13.19	-1.57	-15.50	_____
Per Hour	\$	15.93	-1.07	-26.15	_____

* Feeder livestock purchases have been deducted from these figures to reflect on farm production.

TABLE 8

1973 Ohio Farm Business Analysis Report

OVERALL SWINE FARM SUMMARY

	<u>Unit</u>	<u>Average</u>	<u>My farm</u>
<u>CASH RECEIPTS</u>			
General Crops	\$	9,453	_____
Special Crops	\$	228	_____
Cash Rent and Royalties	\$	96	_____
Labor Off Farm	\$	155	_____
Custom Work	\$	556	_____
Wool	\$	154	_____
Tax Refund	\$	73	_____
Patronage Dividend	\$	51	_____
Miscellaneous Receipts	\$	460	_____
Government Payments	\$	3	_____
Government Crop Payments	\$	838	_____
Market Livestock			_____
Swine	\$	66,432	_____
Cattle	\$	1,900	_____
Lambs	\$	407	_____
Total Cash Receipts	\$	80,806	_____
<u>CASH EXPENSES</u>			
Hired Labor	\$	1,750	_____
Feed Purchased	\$	26,786	_____
Farm Supplies	\$	1,789	_____
Machinery Repairs	\$	2,077	_____
Bldg., Fence, Tile, Etc. Repairs	\$	1,441	_____
Fuel, Oil, and Grease	\$	1,861	_____
Utilities (Farm Share)	\$	809	_____
Drying & Storage	\$	703	_____
Miscellaneous Expenses	\$	481	_____
Seeds and Plants	\$	2,291	_____
Fertilizer and Lime	\$	6,319	_____
Machine Hire and Trucking	\$	916	_____
Auto Expense (Farm Share)	\$	198	_____
Interest on Notes and Mortgage	\$	4,027	_____
Veterinary and Medicine	\$	784	_____
Feeder Livestock Purchase	\$	8,199	_____
Taxes	\$	801	_____
Cash Rent	\$	3,449	_____
Insurance	\$	520	_____
Total Cash Expenses	\$	65,201	_____

TABLE 9

1973 Ohio Farm Business Analysis Report

FARROW and FINISH SWINE ENTERPRISE SUMMARY

	<u>Unit</u>	<u>Top 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	<u>My farm</u>
PER CWT OF PORK PRODUCED					
<u>FINANCIAL SUMMARY</u>		<u>Per cwt</u>	<u>Per cwt</u>	<u>Per cwt</u>	
VALUE OF PORK PRODUCTION	\$	45.14	41.52	43.21	_____
Cash Expenses					
Hired Labor	\$	1.69	.76	.27	_____
Feed Purchased	\$	12.73	14.23	18.12	_____
Farm Supplies	\$	.58	.39	.49	_____
Machine Repairs	\$	.15	.15	.55	_____
Build Fence, Etc.	\$	.54	.52	.79	_____
Fuel, Oil & Grse.	\$	.22	.20	.28	_____
Utilities (Farm Share)	\$	.41	.51	.69	_____
Misc. Expense	\$	.13	.30	.32	_____
Machine Hired Trk.	\$	.13	.12	.06	_____
Auto Expense	\$	.06	.08	.18	_____
Interest on Notes	\$	.28	1.03	.86	_____
Vet Medicine	\$	.47	.39	.51	_____
Taxes	\$	.15	.13	.23	_____
Rent	\$	--	.30	2.11	_____
Insurance	\$	.27	.17	.32	_____
Total Cash Expenses*	\$	17.81	19.28	25.78	_____
Non-Cash Expenses					
Depreciation					
Bldg. Fence Tile	\$	.63	.91	1.51	_____
Machinery & Equip.	\$	.54	.84	1.10	_____
Purchased Brdg. Stk.	\$	.17	.40	.64	_____
Total Depreciation	\$	1.34	2.15	3.25	_____
Unpaid Opr. and Fam. Labor	\$	2.29	3.89	5.47	_____
Interest Not Charged	\$	1.89	1.42	2.01	_____
Home Grown Feeds	\$	9.06	8.49	13.92	_____
Total Non-Cash Expenses	\$	14.58	15.95	24.65	_____
TOTAL EXPENSE OF PORK PRODUCTION*	\$	32.39	35.23	50.43	_____
Management Income and Profit	\$	12.75	6.29	-7.22	_____
Value of Production minus Cash Expenses	\$	27.33	22.24	17.43	_____
Return to Unpaid Operator and Family Labor, Management and Profit					
Total per cwt	\$	15.04	10.18	-1.75	_____
Per hour	\$	23.85	8.31	-1.05	_____

* Feeder livestock purchases have been deducted from these figures to reflect on farm production.

TABLE 10

1973 Ohio Farm Business Analysis Report

FINISHING SWINE ENTERPRISE SUMMARY

	<u>Unit</u>	<u>Upper Half</u>	<u>Average</u>	<u>Lower Half</u>	<u>My farm</u>
PER CWT OF PORK PRODUCED					
<u>FINANCIAL SUMMARY</u>		<u>Per Cwt</u>	<u>Per Cwt</u>	<u>Per Cwt</u>	
VALUE OF PORK PRODUCTION	\$	38.76	36.82	33.09	
Cash Expenses					
Hired Labor	\$	.73	.55	.20	
Feed Purchased	\$	16.98	16.38	15.23	
Farm Supplies	\$	.18	.16	.13	
Machine Repairs	\$	.14	.14	.14	
Build Fence, Etc.	\$	.42	.39	.34	
Fuel, Oil & Grse.	\$	.06	.08	.13	
Utilities (Farm Share)	\$	.16	.18	.22	
Misc. Expense	\$	.08	.11	.16	
Machine Hired Trk.	\$	.27	.22	.11	
Auto Expense	\$	.05	.05	.04	
Interest on Notes	\$	1.47	1.24	.80	
Vet Medicine	\$	.34	.27	.12	
Feeder Livestock	\$	21.60	20.72	19.02	
Taxes	\$	.12	.17	.26	
Rent	\$	.18	.12	--	
Insurance	\$	.13	.16	.22	
Total Cash Expenses*	\$	21.31	20.22	18.10	
Non-Cash Expenses					
Depreciation					
Bldg. Fence Tile	\$	.46	.54	.70	
Machinery & Equip.	\$	.44	.55	.78	
Purchased Bldg. Stk.	\$	.02	.01	--	
Total Depreciation	\$	.92	1.10	1.48	
Unpaid Opr. and Fam. Labor	\$	1.40	1.72	2.34	
Interest Not Charged	\$	-.18	.41	1.57	
Home Grown Feeds	\$	6.85	8.36	11.28	
Total Non-Cash Expenses	\$	8.99	11.59	16.67	
TOTAL EXPENSE OF PORK PRODUCTION*	\$	30.30	31.81	34.77	
Management Income and Profit	\$	8.46	5.01	-1.68	
Value of Production minus Cash Expenses	\$	17.45	16.60	14.99	
Return to Unpaid Operator and Family Labor, Management and Profit					
Total per cwt	\$	9.86	6.73	.66	
Per hour	\$	28.78	14.93	.98	

* Feeder livestock purchases have been deducted from these figures to reflect on farm production.

TABLE 11

1973 Ohio Farm Business Analysis Report

GENERAL CROP FARM SUMMARY, OWNER-OPERATOR

	<u>Unit</u>	<u>Upper 50%</u>	<u>Average</u>	<u>Lower 50%</u>	<u>My Farm</u>
<u>CASH RECEIPTS</u>					
Milk and Cream	\$	1,927	1,850	1,765	
General Crops	\$	53,291	40,003	25,236	
Special Crops	\$	--	241	509	
Cash Rent and Royalties	\$	145	175	209	
Labor Off Farm	\$	257	388	533	
Custom Work	\$	932	968	1,009	
Wool	\$	150	112	68	
Tax Refund	\$	143	88	26	
Patronage Dividend	\$	63	94	129	
Miscellaneous Receipts	\$	58	91	128	
Government Payments	\$	1,099	958	803	
Government Crop Payments	\$	1,594	1,568	1,539	
Market Livestock					
Swine	\$	3,614	2,052	317	
Cattle	\$	--	1,878	3,964	
Veal Calves	\$	77	65	51	
Lambs	\$	601	423	226	
Total Cash Receipts	\$	63,951	50,954	36,512	
<u>CASH EXPENSES</u>					
Hired Labor	\$	1,621	1,060	436	
Feed Purchased	\$	1,497	1,490	1,483	
Farm Supplies	\$	3,994	2,870	1,622	
Machinery Repairs	\$	3,262	2,580	1,822	
Bldg., Fence, Tile, Etc. Repairs	\$	394	304	205	
Fuel, Oil, and Grease	\$	2,815	2,044	1,187	
Utilities (Farm Share)	\$	487	383	267	
Drying & Storage	\$	406	457	513	
Miscellaneous Expenses	\$	552	437	309	
Seeds and Plants	\$	3,743	3,094	2,372	
Fertilizer and Lime	\$	6,189	6,203	6,215	
Machine Hire and Trucking	\$	445	539	644	
Auto Expense (Farm Share)	\$	443	429	413	
Interest on Notes and Mortgage	\$	3,846	4,466	5,155	
Veterinary and Medicine	\$	98	102	107	
Breeding Fees and Registration	\$	1	15	32	
Feeder Livestock Purchase	\$	1,971	2,257	2,576	
Taxes	\$	1,144	1,391	1,667	
Cash Rent	\$	7,642	4,143	255	
Insurance	\$	707	696	682	
Total Cash Expenses	\$	41,257	34,960	27,962	

TABLE 12

1973 Ohio Farm Business Analysis Report

WHEAT ENTERPRISE SUMMARY

Rank by Family Labor & Management Income
Per Hour to Wheat Enterprise

	<u>Unit</u>	<u>Upper 50%</u>	<u>Average</u>	<u>Lower 50%</u>	<u>My Farm</u>
		<u>Per Acre</u>	<u>Per Acre</u>	<u>Per Acre</u>	
TOTAL VALUE OF PRODUCTION	\$	194.18	163.19	89.56	_____
Cash Expenses					
Hired Labor	\$	2.13	1.63	.44	_____
Farm Supplies	\$	.89	1.15	1.75	_____
Machine Repairs	\$	6.71	7.37	8.88	_____
Build, Fence, Etc.	\$	.29	.67	1.56	_____
Fuel, Oil & Grease	\$	5.26	5.37	5.56	_____
Utilities (Farm Share)	\$	.32	.33	.44	_____
Drying & Storage	\$	.24	.18	.12	_____
Misc. Expense	\$	1.05	1.07	1.12	_____
Seeds & Plants	\$	8.79	9.67	11.75	_____
Fertilizer & Lime	\$	18.21	16.67	13.00	_____
Machine Hired Trk.	\$	1.58	1.89	2.63	_____
Auto Expense	\$	.79	1.00	1.50	_____
Interest on Notes	\$	6.92	9.56	15.81	_____
Taxes	\$	3.37	3.74	4.63	_____
Rent	\$	10.50	7.92	1.88	_____
Insurance	\$	1.61	1.59	1.56	_____
Total Cash Expenses	\$	68.66	69.81	72.63	_____
Non-Cash Expenses					
Depreciation					
Bldg., Fence & Tile	\$	2.39	3.00	4.39	_____
Machinery & Equip.	\$	11.84	12.59	14.42	_____
Total Depreciation	\$	14.23	15.59	18.81	_____
Unpaid Opr. and Fam. Labor	\$	12.79	13.56	15.31	_____
Interest Not Charged	\$	18.29	19.41	22.00	_____
Total Non-Cash Expenses	\$	45.31	48.56	56.12	_____
TOTAL EXPENSES OF PRODUCTION	\$	113.97	118.37	128.75	_____
Management Income and Profit	\$	80.21	44.82	-39.19	_____
Value of Production minus Cash Expenses	\$	125.52	93.38	16.93	_____
Return to Unpaid Operator and Family Labor, Management and Profit					
Total Per Acre	\$	93.00	58.38	-23.88	_____
Per Hour	\$	22.21	12.63	-4.48	_____

TABLE 13

1973 Ohio Farm Business Analysis Report

SOYBEAN ENTERPRISE SUMMARY

	Unit	Rank by Family Labor & Management Income Per Hour to Soybean Enterprise			My Farm
		Upper 25%	Middle 50%	Lower 25%	
		Per Acre	Per Acre	Per Acre	
TOTAL VALUE OF PRODUCTION	\$	197.67	149.45	140.50	
Cash Expenses					
Hired Labor	\$	1.73	1.22	2.84	
Farm Supplies	\$	6.40	7.31	3.32	
Machine Repairs	\$	8.07	6.38	9.70	
Build, Fence, Etc.	\$	.28	.62	.71	
Fuel, Oil & Grease	\$	6.13	5.04	5.64	
Utilities (Farm Share)	\$	.41	.62	.39	
Drying & Storage	\$	.23	.17	.72	
Misc. Expense	\$	1.73	1.13	.60	
Seeds & Plants	\$	8.26	9.29	8.89	
Fertilizer & Lime	\$	7.46	6.71	14.22	
Machine Hired Trk.	\$	1.31	.82	1.93	
Auto Expense	\$	.46	1.27	.79	
Interest on Notes	\$	7.46	9.00	7.15	
Taxes	\$	4.29	2.32	2.76	
Rent	\$	12.87	15.29	8.25	
Insurance	\$	2.15	1.62	1.40	
Total Cash Expenses	\$	69.24	68.81	69.31	
Non-Cash Expenses					
Depreciation					
Bldg., Fence & Tile	\$	2.32	2.40	2.93	
Machinery & Equip.	\$	11.97	10.05	13.31	
Total Depreciation	\$	14.29	12.45	16.24	
Unpaid Opr. and Fam. Labor	\$	8.89	14.02	9.83	
Interest Not Charged	\$	18.22	10.43	20.56	
Total Non-Cash Expenses	\$	41.40	36.90	46.63	
TOTAL EXPENSES OF PRODUCTION	\$	110.64	105.71	115.94	
Management Income and Profit	\$	87.03	43.74	24.56	
Value of Production minus Cash Expenses	\$	128.43	80.64	71.19	
Return to Unpaid Operator and Family Labor, Management and Profit					
Total Per Acre	\$	95.92	57.76	34.39	
Per Hour	\$	33.72	12.27	10.58	

TABLE 14

1973 Ohio Farm Business Analysis Report

CORN ENTERPRISE SUMMARY

	<u>Unit</u>	Rank by Family Labor & Management Income Per Hour to Corn Enterprise			<u>My Farm</u>
		<u>Top 25%</u>	<u>Middle 50%</u>	<u>Lower 25%</u>	
		<u>Per Acre</u>	<u>Per Acre</u>	<u>Per Acre</u>	
TOTAL VALUE OF PRODUCTION	\$	271.84	183.26	194.41	_____
Cash Expenses					
Hired Labor	\$	3.47	1.76	1.24	_____
Farm Supplies	\$	11.11	6.44	9.11	_____
Machine Repairs	\$	7.63	6.90	9.14	_____
Build, Fence, Etc.	\$	.66	.57	1.49	_____
Fuel, Oil & Grease	\$	6.58	6.34	6.68	_____
Utilities (Farm Share)	\$	1.26	.88	.74	_____
Drying & Storage	\$	4.32	2.72	2.88	_____
Misc. Expense	\$	.90	1.22	1.19	_____
Seeds & Plants	\$	10.20	8.70	8.88	_____
Fertilizer & Lime	\$	32.41	28.08	37.74	_____
Machine Hired Trk.	\$	1.19	3.20	2.13	_____
Auto Expense	\$	.76	.82	.92	_____
Interest on Notes	\$	9.63	10.82	14.30	_____
Taxes	\$	3.26	3.91	4.11	_____
Rent	\$	17.63	9.37	12.09	_____
Insurance	\$	1.61	1.78	2.35	_____
Total Cash Expenses	\$	112.62	93.51	114.99	_____
Non-Cash Expenses					
Depreciation					
Bldg., Fence & Tile	\$	4.16	3.54	2.78	_____
Machinery & Equip.	\$	13.08	17.84	19.58	_____
Total Depreciation	\$	17.24	21.38	22.36	_____
Unpaid Opr. and Fam. Labor	\$	11.21	15.77	18.52	_____
Interest Not Charged	\$	18.03	18.01	20.07	_____
Total Non-Cash Expenses	\$	46.48	55.16	60.95	_____
TOTAL EXPENSES OF PRODUCTION	\$	159.10	148.67	175.94	_____
Management Income and Profit	\$	112.74	34.59	18.47	_____
Value of Production minus Cash Expenses	\$	159.22	89.75	79.42	_____
Return to Unpaid Operator and Family Labor, Management and Profit					
Total Per Acre	\$	123.95	50.36	36.99	_____
Per Hour	\$	32.15	9.13	6.18	_____

TABLE 15

1973 Ohio Farm Business Analysis Report

OATS ENTERPRISE SUMMARY

	<u>Unit</u>	<u>Average</u> <u>Per Acre</u>	<u>My Farm</u>
TOTAL VALUE OF PRODUCTION	\$	72.64	_____
Cash Expenses			
Hired Labor	\$	.75	_____
Farm Supplies	\$	.68	_____
Machine Repairs	\$	4.97	_____
Build, Fence, Etc.	\$	.43	_____
Fuel, Oil & Grease	\$	4.64	_____
Utilities (Farm Share)	\$	.11	_____
Drying & Storage	\$	.07	_____
Misc. Expense	\$	.71	_____
Seeds & Plants	\$	4.86	_____
Fertilizer & Lime	\$	10.43	_____
Machine Hired Trk.	\$	1.14	_____
Auto Expense	\$	.89	_____
Interest on Notes	\$	5.32	_____
Taxes	\$	3.96	_____
Rent	\$	1.43	_____
Insurance	\$	1.04	_____
Total Cash Expenses	\$	41.43	_____
Non-Cash Expenses			
Depreciation			
Bldg., Fence & Tile	\$	2.54	_____
Machinery & Equip.	\$	9.39	_____
Total Depreciation	\$	11.93	_____
Unpaid Opr. and Fam. Labor	\$	6.75	_____
Interest Not Charged	\$	18.39	_____
Total Non-Cash Expenses	\$	37.07	_____
TOTAL EXPENSES OF PRODUCTION	\$	78.50	_____
Management Income and Profit	\$	-5.86	_____
Value of Production minus Cash Expenses	\$	31.21	_____
Return to Unpaid Operator and Family Labor, Management and Profit			
Total Per Acre	\$	.89	_____
Per Hour	\$	.42	_____

TABLE 16

1973 Ohio Farm Business Analysis Report

CORN SILAGE ENTERPRISE SUMMARY

	Unit	Rank by Family Labor & Management Income Per Hour to Corn Silage Enterprise			My Farm
		Upper 50%	Average	Lower 50%	
		Per Acre	Per Acre	Per Acre	
TOTAL VALUE OF PRODUCTION	\$	235.72	207.58	153.83	_____
Cash Expenses					
Hired Labor	\$	3.91	3.50	2.74	_____
Farm Supplies	\$	7.47	6.31	4.00	_____
Machine Repairs	\$	7.36	8.11	10.13	_____
Build, Fence, Etc.	\$	1.55	1.22	.57	_____
Fuel, Oil & Grease	\$	5.30	5.33	5.70	_____
Utilities (Farm Share)	\$	.26	.22	.17	_____
Drying & Storage	\$	1.17	.81	--	_____
Misc. Expense	\$	.49	.69	1.17	_____
Seeds & Plants	\$	8.85	7.92	6.22	_____
Fertilizer & Lime	\$	26.51	29.67	37.96	_____
Machine Hired Trk.	\$	1.96	4.11	9.04	_____
Auto Expense	\$	.34	.75	1.74	_____
Interest on Notes	\$	10.40	13.61	21.35	_____
Taxes	\$	3.89	4.31	5.43	_____
Rent	\$	6.26	4.44	.56	_____
Insurance	\$	1.51	1.61	1.87	_____
Total Cash Expenses	\$	87.23	92.61	108.65	_____
Non-Cash Expenses					
Depreciation					
Bldg., Fence & Tile	\$	2.64	3.42	5.30	_____
Machinery & Equip.	\$	17.10	16.55	16.05	_____
Total Depreciation	\$	19.74	19.97	21.35	_____
Unpaid Opr. and Fam. Labor	\$	19.62	21.25	25.52	_____
Interest Not Charged	\$	28.26	27.92	28.39	_____
Total Non-Cash Expenses	\$	67.62	69.14	75.26	_____
TOTAL EXPENSES OF PRODUCTION	\$	154.85	161.75	183.91	_____
Management Income and Profit	\$	80.87	45.83	-30.08	_____
Value of Production minus Cash Expenses	\$	148.49	114.97	45.18	_____
Return to Unpaid Operator and Family Labor, Management and Profit					
Total Per Acre	\$	100.49	67.08	-4.56	_____
Per Hour	\$	14.75	9.01	-5.50	_____

TABLE 17

1973 Ohio Farm Business Analysis Report

ALFALFA HAY ENTERPRISE SUMMARY

	<u>Unit</u>	<u>Average</u> <u>Per Acre</u>	<u>My Farm</u>
TOTAL VALUE OF PRODUCTION	\$	104.24	_____
Cash Expenses			
Hired Labor	\$	6.32	_____
Farm Supplies	\$	1.92	_____
Machine Repairs	\$	8.64	_____
Build, Fence, Etc.	\$	.60	_____
Fuel, Oil & Grease	\$	7.96	_____
Utilities (Farm Share)	\$	.44	_____
Misc. Expense	\$	1.36	_____
Seeds & Plants	\$	4.08	_____
Fertilizer & Lime	\$	11.40	_____
Machine Hired Trk.	\$	2.20	_____
Auto Expense	\$	.80	_____
Interest on Notes	\$	12.12	_____
Taxes	\$	4.00	_____
Rent	\$	9.16	_____
Insurance	\$	1.52	_____
Total Cash Expenses	\$	72.52	_____
Non-Cash Expenses			
Depreciation			
Bldg., Fence & Tile	\$	4.12	_____
Machinery & Equip.	\$	23.64	_____
Total Depreciation	\$	27.76	_____
Unpaid Opr. and Fam. Labor	\$	27.36	_____
Interest Not Charged	\$	24.96	_____
Total Non-Cash Expenses	\$	80.08	_____
TOTAL EXPENSES OF PRODUCTION	\$	152.60	_____
Management Income and Profit	\$	-48.36	_____
Value of Production minus Cash Expenses	\$	31.72	_____
Return to Unpaid Operator and Family Labor, Management and Profit			
Total Per Acre	\$	-21.00	_____
Per Hour	\$	-2.34	_____

TABLE 18

1973 Ohio Farm Business Analysis Report

CLOVER-MIXED HAY ENTERPRISE SUMMARY

Rank by Family Labor & Management Income
Per Hour to Clover Enterprise

	Upper 50%	Average	Lower 50%	My Farm
--	-----------	---------	-----------	---------

Unit	Per Acre	Per Acre	Per Acre	
------	----------	----------	----------	--

TOTAL VALUE OF PRODUCTION	\$	114.79	92.08	76.40	
Cash Expenses					
Hired Labor	\$	5.76	5.29	5.07	
Farm Supplies	\$	1.76	4.34	6.48	
Machine Repairs	\$	8.52	9.24	10.05	
Build, Fence, Etc.	\$	.24	1.05	1.71	
Fuel, Oil & Grease	\$	5.15	5.66	6.21	
Utilities (Farm Share)	\$	.42	.45	.45	
Misc. Expense	\$	.15	.47	.74	
Seeds & Plants	\$	2.42	3.29	4.05	
Fertilizer & Lime	\$	5.64	6.21	6.81	
Machine Hired Trk.	\$	--	.68	1.24	
Auto Expense	\$	.42	1.00	1.45	
Interest on Notes	\$	12.73	9.42	7.05	
Taxes	\$	3.36	2.77	2.33	
Rent	\$	.55	3.97	6.74	
Insurance	\$	.52	.79	1.05	
Total Cash Expenses	\$	47.64	54.63	61.43	
Non-Cash Expenses					
Depreciation					
Bldg., Fence & Tile	\$	1.70	2.47	3.14	
Machinery & Equip.	\$	11.15	12.24	13.31	
Total Depreciation	\$	12.85	14.71	16.45	
Unpaid Opr. and Fam. Labor	\$	18.33	23.82	29.19	
Interest Not Charged	\$	13.24	20.29	26.33	
Total Non-Cash Expenses	\$	44.42	58.82	71.97	
TOTAL EXPENSES OF PRODUCTION	\$	92.06	113.45	133.40	
Management Income and Profit	\$	22.73	-21.37	-57.00	
Value of Production minus Cash Expenses	\$	67.15	37.45	14.97	
Return to Unpaid Operator and Family Labor, Management and Profit					
Total Per Acre	\$	41.06	2.45	-27.81	
Per Hour	\$	5.82	.27	-2.56	

TABLE 19

Table 1—Farm production expenses, United States, 1970 and 1971, percentage change 1971 to 1972, and forecasted change 1972 to 1973

Item	1970 ¹	1971 ¹	Change 1971 to 1972 ²	Forecast 1972 to 1973 ³
	Million dollars	Million dollars	Percent	Direction
Farm power and machinery				
Petroleum fuel and oil	1,767	1,833	-2	++
Repairs and maintenance on motor vehicles	1,695	1,762	2	+
Repairs on other machinery	865	894	4	+
Depreciation on motor vehicles	2,314	2,547	4	+
Depreciation on other machinery	2,453	2,644	6	+
Total	9,094	9,680	3	+
Farm buildings and structures				
Repairs and maintenance	704	747	7	+
Depreciation on farm buildings	1,729	1,774	3	+
Total	2,433	2,521	4	+
Fertilizer and lime	2,222	2,522	4	+
Farm pesticides	896	959	9	+
Purchased seed	829	978	9	++
Feed purchased	7,189	7,956	6	++
Livestock purchased	4,345	4,759	18	+
Hired labor, total wages	3,643	3,809	8	++
Insurance ⁴	227	215	5	++
Taxes on farm property	2,957	3,093	5	++
Interest on non-real estate debt	2,011	2,016	9	++
Interest on farm mortgage debt	1,717	1,849	11	++
Net rent to nonfarm landlords	1,302	1,328	13	-
Other expenses ⁵	2,226	2,321	7	+
Total farm production expenses	41,091	44,006	7 ⁶	++

¹Expense data for 1970 and 1971 from Farm Income Situation, FIS-220, July 1972, plus unpublished data for pesticides and insurance. ²Preliminary estimates. ³Forecast: + = up to 5 percent increase; ++ = more than 5 percent. ⁴Net costs for fire, wind, and crop insurance (premium minus indemnity payments for losses). ⁵Includes electricity and telephones (business share).

livestock marketing charges, ginning, milk hauling, irrigation, grazing, binding materials, horse and mule expense, blacksmithing and hardware, veterinary services and medicine, and other services and supplies. ⁶Preliminary estimate of 1972 total farm production expenses is \$47,200 million.

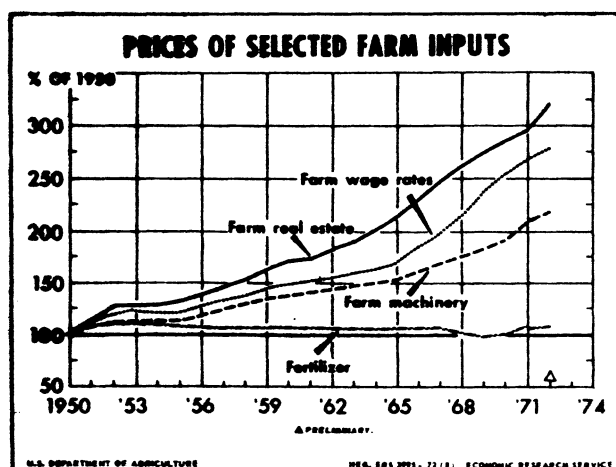


Figure 1

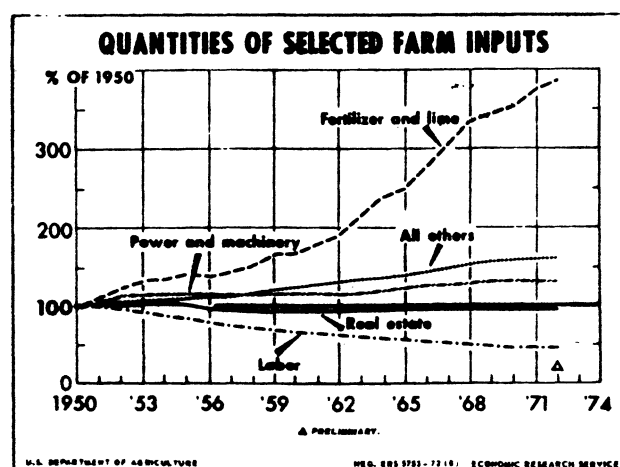


Figure 2